

CLAIMS

What is claimed is:

1. A method, comprising:

when a server is active in a network, querying the server for information about

a desired peer in the network; and

when the server is not active in the network, querying neighbor peers for

information about the desired peer.

2. The method of claim 1, wherein the server includes a server peer directory containing information about peers in the network.

3. The method of claim 1, wherein the each of the peers in the network includes a neighbor peer directory containing information about the neighbor peers.

4. The method of claim 3, further comprising:

determining if the desired peer is located in the neighbor peer directory prior to

querying the server; and

retrieving the information about the desired peer from a local storage when the

desired peer is located in the neighbor peer directory.

5. The method of claim 4, wherein querying the neighbor peers comprises:
querying each of the neighbor peers included in the neighbor peer directory to
locate the desired peer; and
when the desired peer is located in the neighbor peer, retrieving the information
about the desired peer from the neighbor peer.

6. The method of claim 1, wherein when the server is not active in the network,
at least one of the peers in the network becomes a replacement server.

7. The method of claim 6, wherein the at least one of the peers in the network
becomes a replacement server by broadcasting a message to the peers in the
network.

8. The method of claim 7, wherein the at least one of the peers in the network
becomes a replacement server by receiving positive acknowledgement to the
broadcasted message from the peers in the network.

9. The method of claim 6, wherein the at least one of the peers in the network
becomes a replacement server if the peer has sufficient capability rating.

10. The method of claim 9, wherein the capability rating includes previously set indication that the peer is capable of performing as the replacement server.

11. A peer system, comprising:

a network interface to connect to a network;

a processor coupled with the network interface;

a memory coupled with the processor and the network interface, the memory

including a neighbor peer directory having information about zero or more neighbor peers in the network, wherein when searching for a desired peer, the neighbor peer directory is first searched to locate the desired peer, and when the desired peer is not located in the neighbor peer directory, a query is sent to a server connected to the network to search for the desired peer.

12. The system of claim 11, wherein the query is sent to the server when the server is active.

13. The system of claim 12, wherein the server includes a server-peer directory having information about all peers in the network.

14. The system of claim 12, wherein when the server is not active, the query is sent to each of the neighbor peers included in the neighbor peer directory.

15. The system of claim 12, wherein when the server is not active, one or more peers in the network becomes a replacement server.

16. A computer readable medium containing executable instructions which, when executed in a processing system, causes the processing system to perform a method comprising:

when a server is active in a network, querying the server for information about

a desired peer in the network; and

when the server is not active in the network, querying neighbor peers for

information about the desired peer.

17. The computer readable medium of claim 16, wherein the server includes a server peer directory containing information about peers in the network.

18. The computer readable medium of claim 16, wherein the each of the peers in the network includes a neighbor peer directory containing information about the neighbor peers.

19. The computer readable medium of claim 18, further comprising:
determining if the desired peer is located in the neighbor peer directory prior to
querying the server; and
retrieving the information about the desired peer from a local storage when the

desired peer is located in the neighbor peer directory.

20. The computer readable medium of claim 19, wherein querying the neighbor peers comprises:

querying each of the neighbor peers included in the neighbor peer directory to locate the desired peer; and

when the desired peer is located in the neighbor peer, retrieving the information about the desired peer from the neighbor peer.

21. The computer readable medium of claim 16, wherein when the server is not active in the network, at least one of the peers in the network becomes a replacement server.

22. The computer readable medium of claim 21, wherein the at least one of the peers in the network becomes a replacement server by broadcasting a message to the peers in the network.

23. The computer readable medium of claim 22, wherein the at least one of the peers in the network becomes a replacement server by receiving positive acknowledgement to the broadcasted message from the peers in the network.

24. The computer readable medium of claim 21, wherein the at least one of the peers in the network becomes a replacement server if the peer has sufficient capability rating.

25. The computer readable medium of claim 24, wherein the capability rating includes previously set indication that the peer is capable of performing as the replacement server.

26. A peer system, comprising:

means for locating a desired peer by querying a neighbor peer directory, the

neighbor peer directory including information about neighbor peers, the
neighbor peers connected to a network;

means for locating the desired peer by querying a server connected to the
network; and

means for locating the desired peer by querying the neighbor peers.

27. The system of claim 26, wherein the server includes information about all peers connected to the network.

28. The system of claim 26, wherein the neighbor peers are queried when the server is not active.